Satellite i-STEPS

Beginner Training

Maine Department of
Environmental Protection

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Many thanks to the Indiana Department of Environmental Management, Office of Air Quality for their fine Satellite i-STEPS manuals and web-based help. Visit them at: http://www.state.in.us/idem/air/programs/emissions/emissprog/help/help.html

Other useful websites:

Maine Dept. of Environmental Protection
Emissions Inventory Program
Satellite i-STEPS "How To" Guide and Other Common Problems
http://www.state.me.us/dep/air/emissions/isteps-howto.htm

U.S. Environmental Protection Agency
Emission Factors and AP-42
http://www.epa.gov/ttn/chief/ap42/index.html

U.S. Environmental Protection Agency
Emission Inventory Improvement Program
Technical Report Series, Volume 1-10
http://www.epa.gov/ttn/chief/eiip/techreport/index.html

U.S. Environmental Protection Agency
Emission Inventory Related Codes
http://www.epa.gov/ttn/chief/codes/

U.S. Environmental Protection Agency
Factor Information Retrieval (FIRE 6.25)
http://www.epa.gov/ttn/chief/software/fire/index.html

U.S. Environmental Protection Agency
Emission Inventory Training
http://www.epa.gov/ttn/chief/eidocs/training.html

1

What is Satellite i-STEPS?

The U.S. Environmental Protection Agency (EPA) requires each state to compile air quality and emissions data, quality control the data compiled, run analysis on the data and annually submit the entire dataset to EPA. Maine DEP uses a program called i-STEPS Infinity to perform the data storage and analysis tasks.

Satellite i-STEPS is a scaled-down version of the program that Maine DEP uses. Satellite i-STEPS allows facilities to enter, calculate and electronically transmit their annual air emissions inventory. The State of Maine pays an annual license and support fee to the consulting firm MACTEC for facilities in Maine to use this program.

The Maine DEP has found several advantages to using Satellite i-STEPS.

- *Minimizes math computation errors* - Satellite i-STEPS automatically performs the calculations which estimate air emissions. Most facilities need only enter annual throughput and the emissions are automatically calculated.
- *Automatically calculates outputs needed for modeling* - The data provided by facilities is used to model air quality, such as summertime, ground-level ozone. Satellite i-STEPS and i-STEPS Infinity automatically calculate daily emission inputs needed for these models.
- *Eliminates data entry errors* - When your data is transmitted electronically to Maine DEP, it eliminates the possibility of data entry errors by Maine DEP staff. The data we upload into i-STEPS Infinity is exactly as it left your facility.

Satellite i-STEPS is designed to operate on Windows 95 or higher systems. The program is written with Microsoft Visual FoxPro, Version 5.0, but it neither looks nor acts like most Microsoft products. The user-interface is the most common complaint about Satellite i-STEPS.

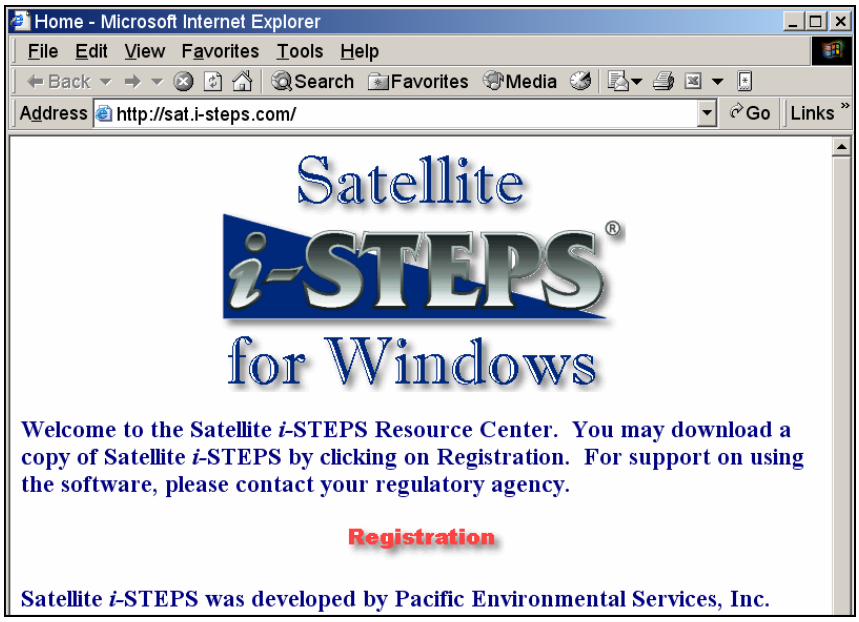
The Satellite i-STEPS Beginner Training program is designed to acquaint new users with the program and provide a basic level of training so that most small facilities in Maine can submit their annual air emissions inventory with the program.

Let's begin...

2

Downloading and Installing Satellite i-STEPS on Your Computer

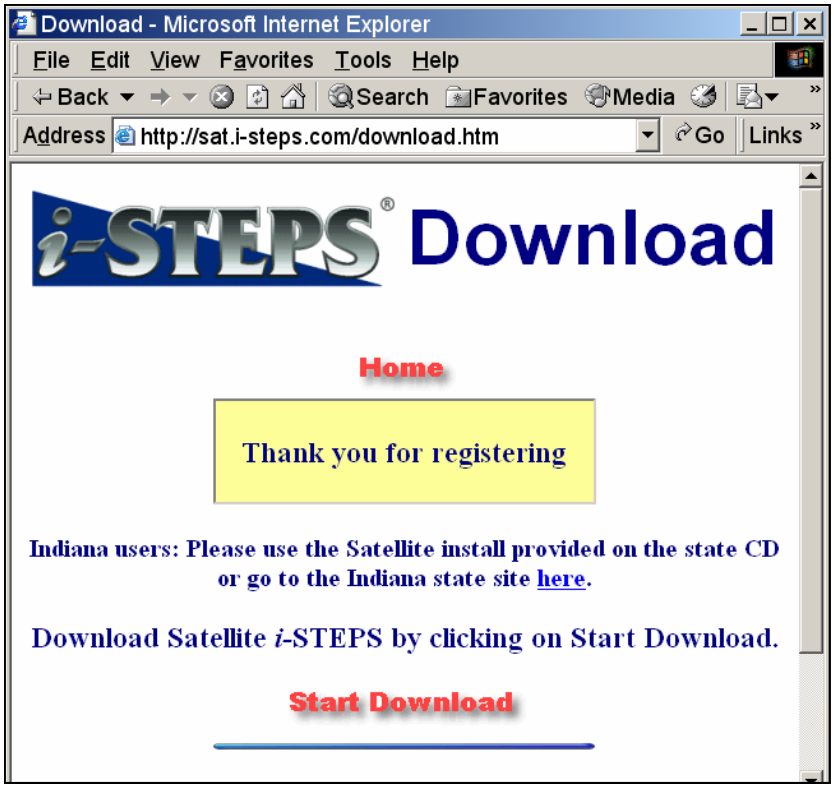
1. Open your web browser and go to the Satellite i-STEPS download page, http://sat.i-steps.com/



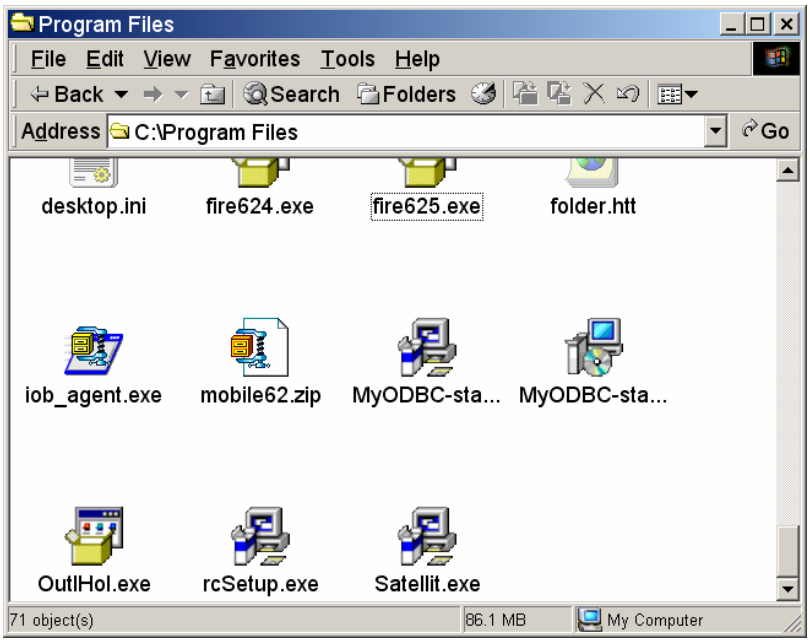
2. Click on **Registration** and complete the registration form. Click **Register**.

3. Click on **Start Download** and download **Satellit.exe** to your hard drive at **C:/Program Files/**.

The file is 9.49 Mb in size, so expect it to take some time, especially if you are downloading through a 56Kb modem. If the file size is a problem, please contact the Maine DEP at (207) 287-7036 or e-mail tammy.gould@Maine.gov and request a copy of the program file on CD.



4. Using **My Computer**, go to the **C:/Program Files/** and double-click **Satellit.exe** to install Satellite i-STEPS.



Please note that if your facility uses networked computers, in particular a Windows NT system, then you should contact your System Administrator for help with proper installation.

Satellite i-STEPS prefers to be installed on the **C:** drive and will, by default, install itself in a directory, **C:\i-sat5\.** If you install the program in a location other than the default directory, **DO NOT** use a directory name that contains spaces or any more than eight (8) characters.

5. Once the software is installed, it will place a Satellite i-STEPS icon on the desktop.

Now that the program is installed on your computer, you will need your facility's data. Unit 3 describes how you download the data from the Internet.

3

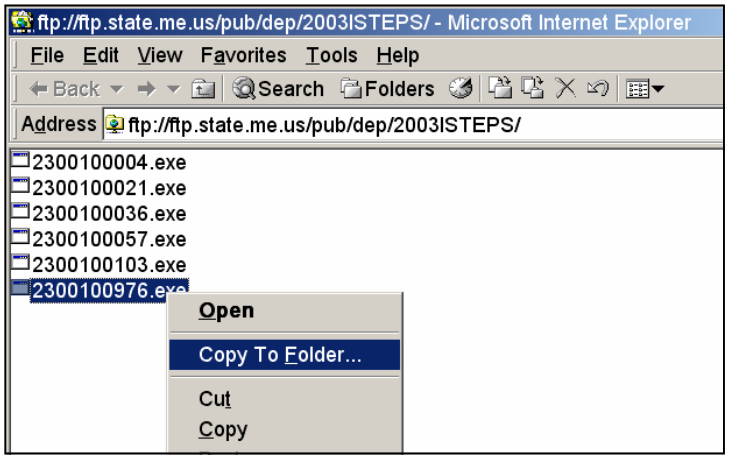
Downloading Your Facility Data from the Internet

Satellite i-STEPS uses last year's data as the starting point for the next annual inventory. In past years, Maine DEP has mailed 3 ½" diskettes containing the previous year's Satellite i-STEPS inventory files. Beginning in 2005, Maine DEP will no longer automatically mail diskettes to facilities. Facilities will use Maine DEP's **ftp site** (file transfer protocol) to download the previous year's data files, if needed.

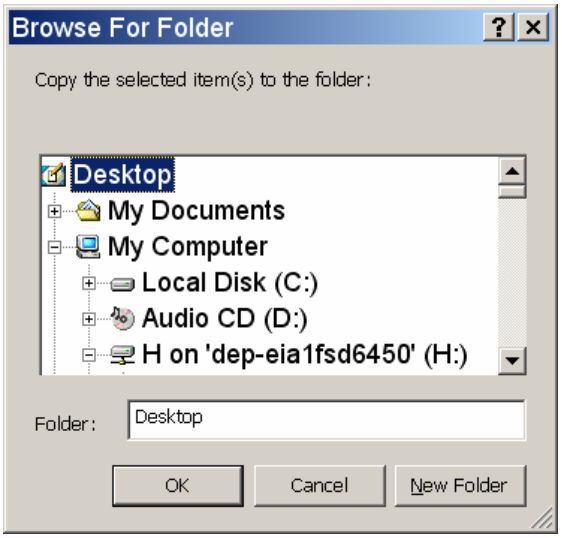
Download Your Facility's .zip File

1. Open Internet Explorer and type ftp://ftp.state.me.us/pub/dep/2003ISTEPS/ in the Address bar. Select **Go** or press **Enter.** You should see a long list of self-extracting zip files with the **.exe** file extension.

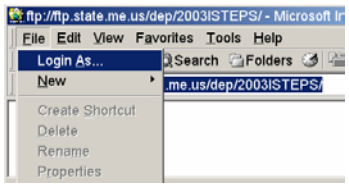
2. The example facility we'll be using in the training is Yancy's Yo-Yos of Leeds, Maine. All files are named with the state and county FIPS code and facility ID number (230xx00yyy.exe, where xx is the county number and yyy is the facility number). Find Yancy's facility data, **2300100976.exe**.



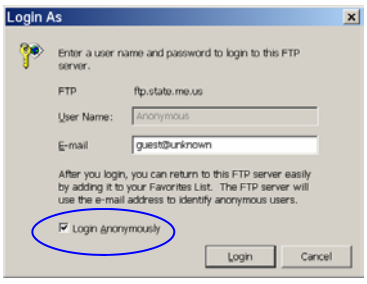
3. Right-click on your facility file. Select **Copy to folder…** In the dialog box, select your computer's **Desktop** as the folder location and click **OK.**



4. The facility file will be copied to your computer's Desktop. Close Internet Explorer.



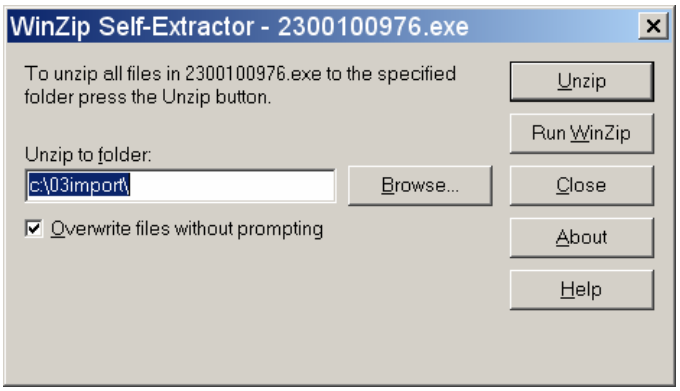
*If, when you selected **Go,** you received an error message prompting you for a password, select **File > Login As…** Check the box next to **Login anonymously** and click **Login**.*



Extract the Satellite i-STEPS Data Files

5. Double-click on the zipped facility file, 2300100976.exe. The WinZip Self-Extractor Program will be launched. The default download location has been set to **C:\03import** for each facility file. Maine DEP recommends that you use the default location. Click **Unzip**.

If you choose to use a different download location, keep the path and folder name to eight characters or less with no spaces.



6. A dialog box will then prompt you for the password. In the box, type **peach**. Click **OK**.

Why use password protected .zip files? Unless specifically marked as "Trade Secret," all emissions inventory information submitted to Maine DEP is "public" and subject to access rules described in the Freedom of Information Act. The password protected .zip file is Maine DEP's attempt to limit file tampering and virus insertion.

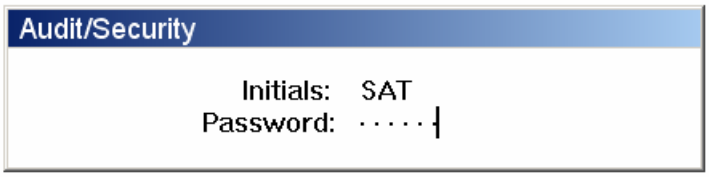
7. You should see a message indicating 15 file(s) unzipped successfully. Close the WinZip Self-Extractor Program.

4

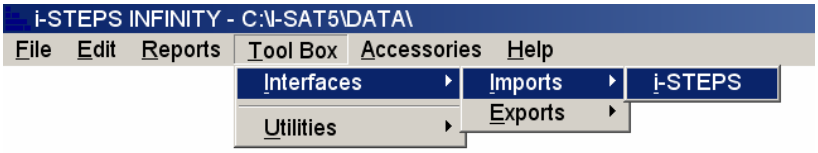
Importing Data into Satellite i-STEPS

If you have reported air emissions data on paper in the past and are using Satellite i-STEPS for the first time or are installing and using Satellite i-STEPS on a new computer, the following directions will be sufficient to import and open your data.

1. Double-click the Satellite i-STEPS icon on your desktop. You will be prompted for your initials and password. Facility-side users can open the application with the initials **SAT** and password **LAUNCH.** Both your initials and password must be in UPPER CASE.



2. Select **Tool Box > Interfaces > Imports > i-STEPS**.

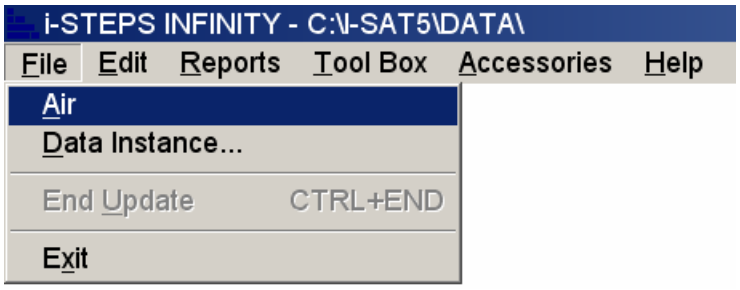


3. Satellite i-STEPS will then ask if you want to "bubble up" emissions. Select **Yes.**

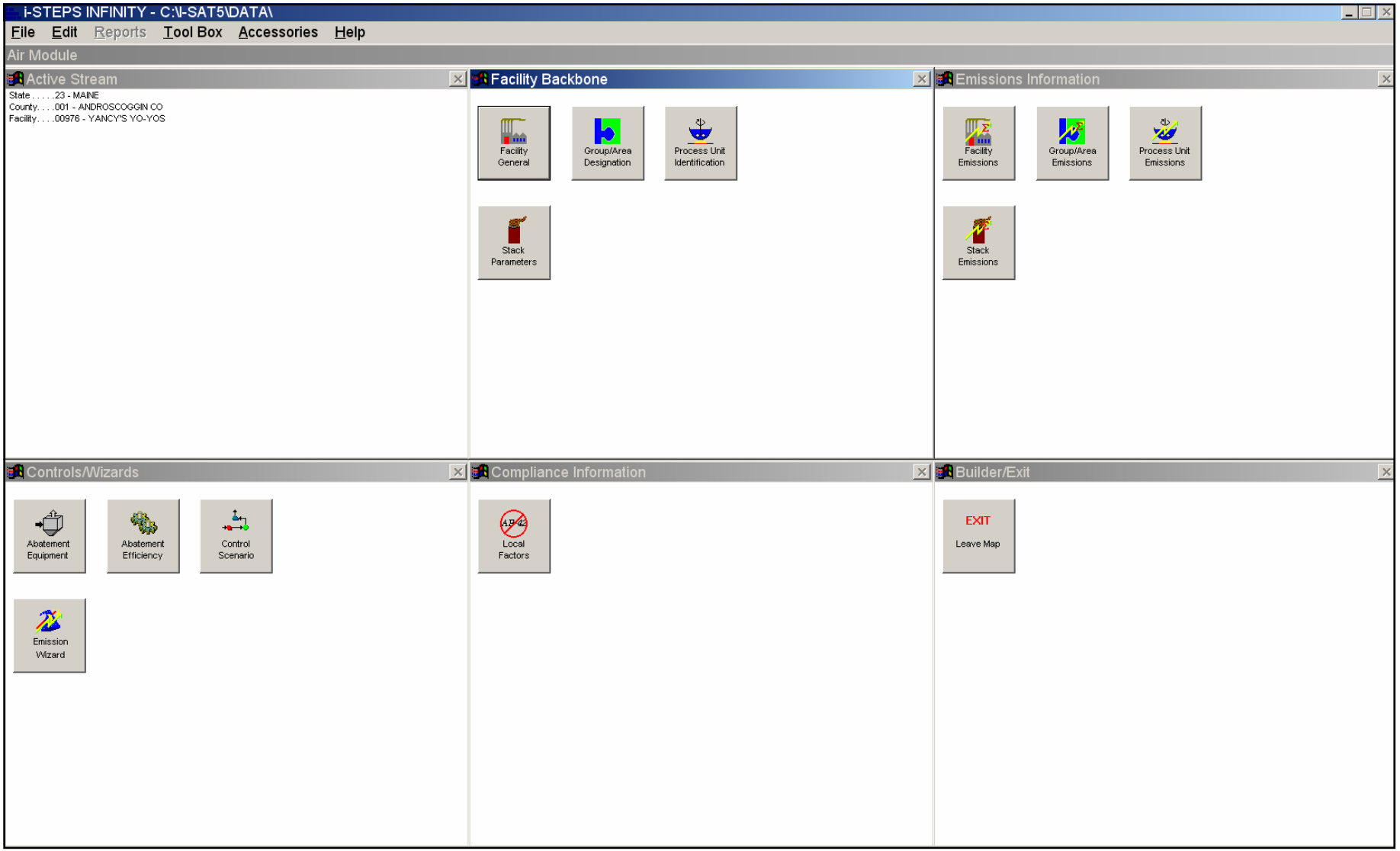
4. You will then be prompted to point to the directory where your facility data is located (in our example, **C:\03import**\). Select the folder or location of your unzipped files by using the drop down arrow to locate your data files. Select **Yes** once you locate the proper directory.

5. The Import procedure will run. You have now populated your facility database and can begin to edit the data.

6. Open the Satellite i-STEPS Main Form (also known as the Map) by selecting **File > Air.**



*If you have used Satellite i-STEPS in the past, you may get an error message during importing that says "**Facility has already been imported. You must delete the facility and select Index/Pack from the utilities menu before importing again**." Satellite i-STEPS will not overwrite an existing data set. To import a new data set, you must first delete the existing data. See Unit 11, "Deleting Data," for directions.*



The Satellite i-STEPS workspace is known as the Map. The Map is divided into six sections: Active Stream, Facility Backbone, Emissions Information, Controls/Wizards, Compliance Information, and Builder/Exit.

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Navigating Satellite i-STEPS

The Satellite i-STEPS Map is the entry point to all your data entry screens. It contains a graphical map of the various data entry and data maintenance windows that are available in Satellite i-STEPS.

Notice that the Map is divided into six sections: Active Stream, Facility Backbone, Emissions Information, Controls/Wizards, Compliance Information, and Builder/Exit. Explanations of each of the sections and their buttons are below, however, for this training program, we will not be doing activities related to the Controls/ Wizards or Compliance Information sections.

Active Stream

This section shows which information is currently being analyzed or edited. Information displayed includes State, County, Facility, Group, Stack, Process, Pollutant and Abatement Equipment. If it is blank, it's because you've just installed the program and haven't edited any data yet.

Facility Backbone

The Facility Backbone section is where information about your facility, its equipment, fuels and stacks is maintained. Four categories of data are input and maintained here.

- **Facility General** - Information kept here includes your facility's physical location and mailing address, geographic coordinates, emissions and contact information, Standard Industrial Classification (SIC) and North American Industrial Classification System (NAICS) codes and year of inventory.

- **Group/Area Designation -** Each facility contains one or more "groups" of process units. Process units can be logically or physically grouped, based on operating schedule, product line, equipment type or input material type. Maine DEP encourages facilities to designate and name groups based on equipment pieces or processes specified in their Air Emissions license. Information kept here includes the operating schedule and percent quarterly throughputs.

- **Process Unit Identification -** A process unit is a fuel, process or procedure that generates a unique set of emissions at a facility. For example, a boiler that burns two types of fuel is considered two process units because each fuel type burned produces a unique emission stream. Information such as Source Classification Code (SCC), actual process rate, and maximum design rate are maintained on this screen.

- **Stack Parameters -** Each facility can contain one or more physical or logical emission stacks. The classic smoke stack represents a physical stack, while vents and windows represent logical stacks. Stack Parameter information contains heights, diameters, exit gas velocities, and gas temperatures.

Emissions Information

- **Process Unit Emissions -** All emissions are calculated by Satellite i-STEPS or entered at the Process Unit Emissions screen. Pollutants for each group/process unit combination are tracked (with any applicable abatement equipment controls applied) at this level. Emission factors and emission calculation methods are maintained on this screen.

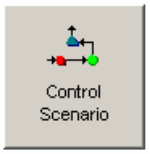
Satellite i-STEPS automatically summarizes emissions at the group (Group/Area Emissions), stack (Stack Emissions), and facility (Facility Emissions) levels. There is no data entry on any of these screens and they simply serve as a reference.

Controls/Wizards

- **Abatement Equipment -** The entries in the Abatement Equipment area are used to identify the devices that reduce the emissions from each process unit.

- **Abatement Efficiency -** The entries in the Abatement Efficiency area are used to define control efficiencies by pollutant for all abatement equipment.

- **Control Scenario -** The entries in the Control Scenario area are used to apply abatement equipment to a process unit and its emissions. Where multiple pieces of abatement equipment are used for a given process unit, the control scenario allows you to sequence them properly.



- **Emission Wizard -** This wizard will guide you through all the tasks of entering/viewing an emission stream. It provides help for all screens from the Facility General screen to the Process Unit Emissions screen. The Emission Wizard is not used to edit existing facility data.

Compliance Information

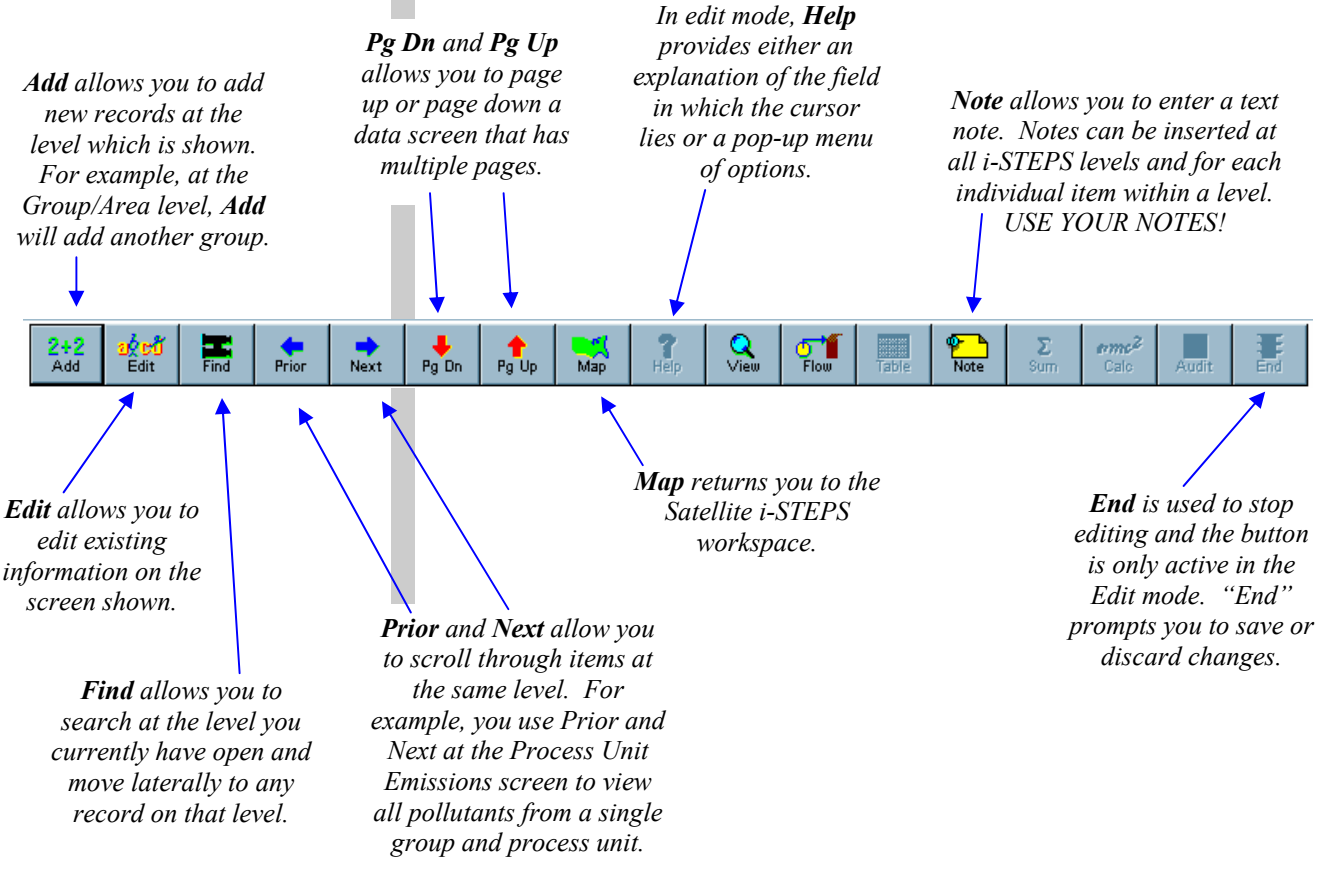
- **Local Factors** - This screen is used to maintain local emission factors for specific SCC codes and pollutants. When adding a local or facility-specific emission factor, most facilities will find it easier to add the emission factor on the Process Unit Emissions screen. We'll learn how to add a local emission factor in Unit 10.

Builder/Exit

- **Exit Leave Map -** This button allows the user to leave the Map and return to the blank white screen that users first see when they login to Satellite i-Steps. It does not close the program (only **File > Exit** actually shuts down the program).

Command Buttons

Each Satellite i-STEPS screen has the same command button bar at the top. For ease of navigation, it's important to become familiar with a few of the command buttons.

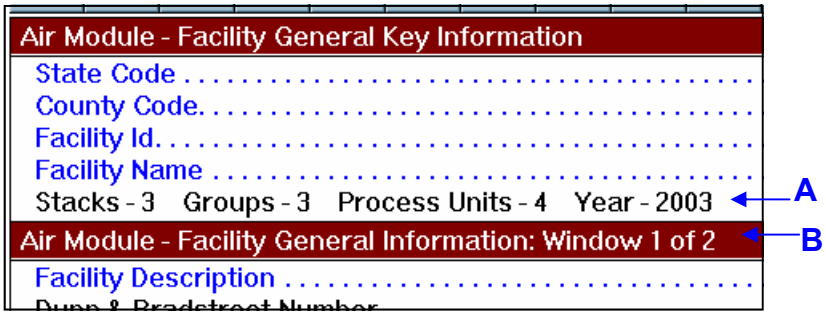


6

Editing Existing Data: Facility General

We're now ready to take a look at our facility data and see what needs editing.

1. Press the **Facility General** button to bring up the facility information screen. The screen is divided into two sections: the Facility General Key Information fields at the top and the Facility General Information fields at the bottom.



2. At the bottom of the Facility General Key Information section, you will find a display telling you the number of stacks, groups and process units associated with the facility and the inventory year for the current data (Arrow A).

3. The separator bar also indicates there are also multiple screens of data (Arrow B). Use **Pg Dn** and **Pg Up** buttons to view all the facility information.

4. Notice that the field descriptors on the left come in three different colors.

   BLUE - All fields with blue descriptors are required data entry fields for Satellite i-STEPS. You will not be able to save edits or additions without those fields being completed.

   GREEN - Field with green descriptors are not required by Satellite i-STEPS, however, many are required by Maine Law (Chapter 137). Important green fields will be pointed out during the editing process.

   BLACK - Like green fields, many of these fields, such as design capacity and stack flow, are required by State law. We'll go over the important ones.

*Maine DEP recommends that you get used to using the Tab and arrow keys to move through fields. If **Enter** is used, it will toggle Yes/No fields and may, mistakenly, change something you did not wish to change.*

5. Press the **Edit** button. You will notice that all editable fields become grayed. The Tab or arrow keys will move you from field to field. Press **End** and you will be prompted, "Do you want to Save changes?" For now, press **No**.

Important and required data fields are:

- **State Code** - For facilities in Maine, that code will always be 23.
- **County Code** - This code is a three-digit code unique to each county in Maine. The codes are as follows:

*State Code, County Code and Facility ID is facility-specific, key information and should **never** be changed without consulting the Maine DEP.*

001 Androscoggin	017 Oxford
003 Aroostook	019 Penobscot
005 Cumberland	021 Piscataquis
007 Franklin	023 Sagadahoc
009 Hancock	025 Somerset
011 Kennebec	027 Waldo
013 Knox	029 Washington
015 Lincoln	031 York

- **Facility ID** - This five-digit code is assigned by the Maine Department of Environmental Protection to uniquely identify your facility.
- **Facility Name** - This should be the facility's current name. In our example, it's Yancy's Yo-Yos.
- **Facility Description** - In five words or less, this field describes what your business makes or does.
- **Location - Street, City, Zip Code** - These fields contain the physical address of the company. NO POST OFFICE BOXES OR OUT OF STATE ADDRESSES. If the town in which your facility is located has recently renamed roads and renumbered streets as part of E-911, it's good to check this field.
- **Mailing Address - Street, City, State, Zip Code** - Although not a required field, it is important that you make sure these are correct and up to date.
- **UTM Zone, UTM Vertical and UTM Horizontal** - UTM stands for "Universal Transverse Mercator" and is simply another coordinate system, such as the more familiar Longitude and Latitude. Maine lies in UTM Zone 19. UTM Vertical coordinates vary from 4770 Km in the south to 5250 Km in the north and UTM Horizontal coordinates vary from 340 Km in the west to 660 Km in the east.

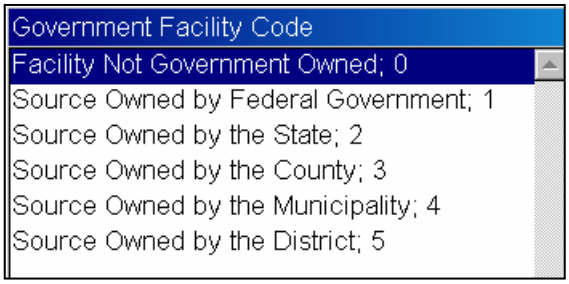
Maine DEP has geolocated all facilities in Maine and their stacks. UTM coordinates should not be changed.

- **Primary NAICS Code** - This field contains the North American Industrial Classification System (NAICS) Code. NAICS Codes can be found on the web at http://www.epa.gov/ttn/chief/codes/naics02tosic87.pdf.

*When you see the Help button next to a field description in this manual, it means there is special code look-up help available for that item. Press **F1** or the **Help** button for code selection.*

- **Primary SIC Code** - The Standard Industrial Classification (SIC) Code is a four-digit code used to identify the main product produced or service performed at a facility. It is being replaced by the six-digit NAICS Code but is still required by Satellite i-STEPS. SIC Codes can be found at http://www.epa.gov/ttn/chief/codes/index.html#sic.

- **Government Facility Code** - Required by i-STEPS, this field identifies whether your facility is owned by a state or federal government entity.



- **Contact - Emissions, Title, Telephone #** - These fields contain information for the primary emissions contact at the facility. If the person has left the position, please update the information!

- **Permit -** This field is for your Air License number.

- **Year of Inventory** - The field must contain the year for which you are estimating emissions. This should almost always be the previous calendar year.

- **Date of Last Update and Updated By** - These fields are used in the Audit trail and are filled in automatically by the Satellite i-STEPS software. These fields are on every data screen.

YOUR TURN...

Using the facility data for Yancy's Yo-Yos, make the following changes to the Facility General information.

1. Begin by entering the **Edit** mode.
2. Change the **Facility Name** to Yancy's Yo-Yos LLC.
3. Change the **Mailing Address** to P.O. Box 1016, Lewiston, ME 04240.
4. Change the **Contact - Emissions** to Charlotte Yancy.
5. Change the **Year of Inventory** to 2004.
6. **End** and save changes.

7

Editing and Adding Data: Group/Area Designation

In this section, we'll learn the steps necessary to update and add emissions groups. Each facility contains one or more groups that may consist of one or several similar pieces of equipment or a particular process or operation.

1. If you are not already there, get to the Map and then click on the **Group/Area Designation** button.
2. The Group Information screen looks similar to the Facility General Information screen. Group Key Information is found at the top and group-specific information is found on the bottom.
3. Use the **Prior** and **Next** buttons to view all three groups. Yancy's Yo-Yo's LLC has three groups:

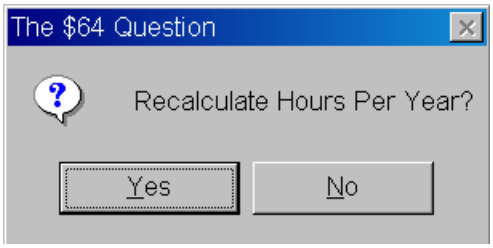
Group Number	Group Description
001	Wood Boiler
002	Oil Boiler
003	Paints and Coatings

Only information pertaining to the operating schedule and a description are in the Group Information section. Note that while none of the fields are "required" by i-STEPS, the operating schedule information is vital to air quality modeling efforts and Maine DEP requires most of this information in state law.

- **Group Number -** Generally, the groups are numbered sequentially. If a single digit is entered, Satellite i-STEPS will automatically populate it with leading zeros.
- **Group Description** - This should be a simple description so that you can identify the equipment or processes that have been grouped together. Maine DEP encourages facilities to name groups based on equipment pieces or processes specified in their Air Emissions license.
- **Operating Schedule** - Six operating schedule fields allow you to describe the operating schedule of the equipment or process. **Operating Schedule - Hrs/Year** is a calculated field which uses the formula below to automatically calculate a value.

```
Hrs/Year = Hrs/Day x Days/Wk x Wks/Yr
```

When edits are made to any of the **Operating Schedule** fields, you will be prompted when you leave that field:



If you select **Yes**, then the hours per year will be recalculated using the formula on the previous page. If you select **No**, the hours are not recalculated. However, during editing, you can always overwrite any calculated value that may appear in that field.

The **Operating Schedule** fields accept only whole numbers (no decimals!) This may make it difficult to accurately express the hours of operation per year. If needed, overwrite the **Operating Schedule - Hrs/Year** - it's the most important of the **Operating Schedule** fields.

- **Throughput** - Each quarterly throughput field needs to be expressed as the percent for that quarter of the total fuel or other material produced or processed. The sum of the quarterly throughputs must equal 100%. The quarters, however, are not your typical calendar or business quarters.

  Dec-Feb Throughput = % throughput for January, February and December of the reporting calendar year

  Mar-May Throughput = % throughput for March, April and May of the reporting calendar year

  Jun-Aug Throughput = % throughput for June, July and August of the reporting calendar year

  Sep-Nov Throughput = % throughput for September, October and November of the reporting calendar year.

- **Ozone Season Operation** - This field reports the number of days that a group within a facility operated during the summer ozone season, considered for these purposes, to be between June 1 and August 31 of the reporting year. The maximum number of days of ozone season operation is 91.

  Ozone season operations is only required for facilities in all or a portion of these southern Maine counties:

  001 Androscoggin (part)
  005 Cumberland
  009 Hancock (part)
  011 Kennebec (part)
  013 Knox (part)
  015 Lincoln (part)
  023 Sagadahoc
  027 Waldo (part)
  031 York

YOUR TURN…

Using our example facility, make the following edits below to the specified Group/Area Designation screen.

A. Using the **Prior** and **Next** buttons, go to:

Group Number	Group Description
002	Oil Boiler

B. Enter the **Edit** mode.

C. Change **Operating Schedule - Days/Wk** to 7. When prompted, allow Satellite i-STEPS to recalculate hours per year.

D. Change **Operating Schedule - Wks/Yr** to 37. Again, when prompted, allow Satellite i-STEPS to recalculate hours per year.

E. Change the quarterly throughput fields to the following values:

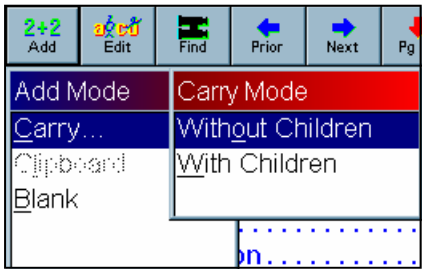
Dec-Feb Throughput	43
Mar-May Throughput	22
Jun-Aug Throughput	7
Sep-Nov Throughput	?? (you figure it out!)

F. **End** and save changes.

Adding a New Group

Adding a new group is similar to editing an existing group. Satellite i-STEPS gives you the option of copying existing group information and will even create associated process units and process unit emission records.

When the **Add** button is selected, the Add Mode menu appears. Three options stem from the Add Mode menu:



- **Blank** gives you a blank Group Information page and fills in only the State Code, County Code and Facility Id. The rest is up to you to complete!

- **Carry … Without Children** copies the information from the group currently displayed into a new group record. You can then edit the data. This may be useful if you are adding a group with a similar operational schedule.
- **Carry … With Children** copies the information for the group currently displayed and copies all of its process unit records and all of its process unit emission records. If you are adding an identical piece of equipment to one already in Satellite i-STEPS, then **Carry … With Children** may be useful. Otherwise, you run the risk of inadvertently adding process unit or process unit emission records that you do need and have the difficult process of deleting them.

YOUR TURN…

Yancy's Yo-Yo's LLC added a new oil-fired boiler to the plant in August of last year. The new oil-fired boiler operated from mid-September for the remainder of the year.

A. If you are not on the Group Information screen, you can get there by clicking on the **Group/Area Designation** button on the Map.

B. Click the **Add** button and then select the **Blank** option.

C. Add the following information about the group:

Group Number	4	
Group Description	Oil Boiler 2004	
Operating Schedule - Hrs/Day	24	
Operating Schedule - Days/Wk	7	
Operating Schedule - Wks/Yr	15	

Allow i-STEPS to calculate the hours per year.

Dec-Feb Throughput	30	
Mar-May Throughput	??	(you figure
Jun-Aug Throughput	??	these out!)
Sep-Nov Throughput	??	

D. **End** and save changes.

E. Add a **Note** about the new equipment and its limited operation in 2004.

F. Exit to the **Map**.

8

Editing and Adding Data: Stack Parameters

This section covers data elements for emission release points, stacks and vents. The **Stack Parameters** screen contains the physical characteristics of a stack, such as: stack diameter and height. Each facility can contain one or more physical or logical stacks. The classic smoke stack represents a physical stack (an identifiable structure or point), while vents, windows and doors represent logical stacks (multiple or indefinable emission points).

The **Stack Parameters** screen is nearly identical to the other screen layouts we've seen. All functions and data navigation are performed in the same fashion.

Important information fields on this screen are:

- **Release Point Type** - Release Point Type identifies whether emissions are released as a stack or fugitive. It is one of the few coded fields in Satellite i-STEPS for which the Help button or **F1** offer no help. The Release Point Type codes are:

  01 - Fugitive
  02 - Vertical
  03 - Horizontal
  04 - Goose Neck
  05 - Vertical with Rain Cap, and
  06 - Downward Facing Vent.

- **Stack Height or Vent Height** - Stack Height or Vent Height is the vertical distance between the point of discharge and the ground, expressed in feet. These two fields are mutually exclusive, as each release point is either a stack or a fugitive release. Stack Height is used for all stack releases. Vent Height is used for fugitive releases.

- **Stack Diameter** - Stack Diameter is the inside diameter of a round gas exit point of emission, measured in feet. If the exit is not round, then the diameter is equal to the square root of the area times 1.128.

- **Coordinates** - Separate UTM and Latitude/Longitude coordinates are maintained for stacks and other release points. By default, these will be the same as your facility coordinates.

- **Stack Gas Flow Rate -** The Stack Gas Flow Rate is expressed in acfm (actual cubic feet per minute), not in cu ft/sec (cubic feet per second). If you know the flow rate in acfm or have sufficient information to do the conversion, please supply it.

- **Stack Exit Gas Temperature** - This is the temperature of the gas, expressed in degrees Fahrenheit.

Maine DEP has geolocated all facilities in Maine and their stacks. UTM coordinates should not be changed.

Actual Cubic Feet Per Minute (acfm) recognizes that the volume of a gas varies with changes in pressure and temperature. Gas flow rates expressed in acfm have not been converted to standard conditions by using the ideal gas equation which related pressure, volume, and temperature.

- **Stack Exit Gas Velocity** - The Stack Exit Gas Velocity is expressed in feet per second.

YOUR TURN…

Yancy's Yo-Yos LLC has noticed that there are several pieces of missing and inaccurate data for Stack 0002, Oil Boiler Stack. Make the following edits.

A. Using the **Prior** and **Next** buttons, go to Stack 0002, Oil Boiler Stack.

B. Enter the **Edit** mode.

C. Change **Stack Height** to 25 feet.

D. Change **Stack Gas Flow Rate** to 30,000 acfm.

E. Change **Stack Gas Temperature** to 250° F.

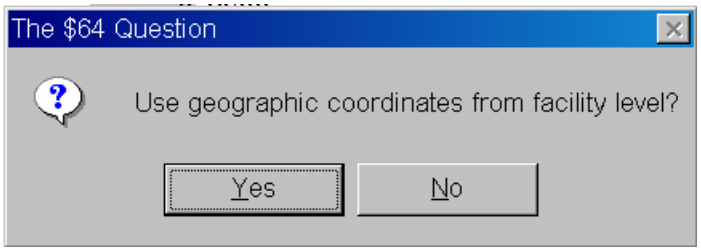
F. Change **Stack Gas Velocity** to 200 ft/sec.

G. **End** and save changes.

Adding a New Stack or Fugitive Release Point

The **Add** feature within Stack Parameters works similar to the **Add** feature in Group/Area Designation with one significant difference: within Add Mode, you cannot **Carry … With Children** because stacks have no sub-records or dependent child records. The two Add Mode options are **Blank** (which provides you a blank data screen) and **Carry** (which duplicates the data on the screen at the time you press **Add**).

When adding a new stack or fugitive release point using either **Blank** or **Carry**, Satellite i-STEPS will automatically prompt you to use the geographic coordinates from the facility level for the new release point.



Maine DEP encourages facilities to always choose **Yes** and duplicate facility coordinates when adding a new stack. Also, please note, that if in the future you update the facility coordinates, the stack coordinates do not automatically change. The coordinate data between the Facility General and Stack Parameter screens is not linked. If more precise geographic information data is available for your facility and stacks, then you need to edit both facility coordinates and stack coordinates separately.

Also, when adding a new stack or fugitive release point, you will notice that **Stack Number** is not an editable field. Satellite i-Steps automatically assigns stack and release point numbers.

YOUR TURN…

When Yancy's Yo-Yos LLC added the oil-fired boiler over the summer, they also added a new stack. The stack is similar in characteristics to the existing Oil Boiler Stack.

A. If you are not on the Stack Information screen, go there by clicking on the **Stack Parameters** button on the Map.

B. Using the **Prior** and **Next** buttons, go the **Stack Number** 0002, **Stack Description** Oil Boiler Stack.

C. Click the **Add** button and then select the **Carry** option.

D. When prompted to use geographic coordinates from the facility level, select **Yes**.

E. Change the following information:

Stack Description	New Oil Boiler Stack
Stack Height	28 Ft.
Stack Diameter	2 Ft.
Stack Gas Flow Rate	50,000 acfm
Stack Exit Gas Temperature	350° F
Stack Exit Gas Velocity	265.3 ft/sec

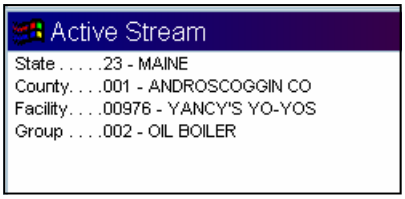
F. **End** and save changes.

G. Return to the **Map**.

A process unit is a piece of equipment or procedure that generates emissions. In Maine, facilities most often define their process units as the fuel combusted or the material processed by associated group. Source Classification Codes (SCC) define each process. Process rates (throughputs), ash and sulfur contents are managed at this level.

Because process units are tied to only one group, you can only view and edit the process units for one group at a time. When editing, the first thing you need to do is make sure that you've got the correct group. It's at this point that you need to pay careful attention to the information in the Active Stream window of the Map. The Active Steam window tells you which group you have active, and therefore, which process units you have available to you for editing.

1. Look at your Active Stream window at the **Map**.



   If Group 002 - Oil Boiler is not showing in your Active Stream window, click on the **Group/Area Designation** button, then use the **Prior** and **Next** buttons to find it. Then return to the **Map** and your Active Stream should look like the above.

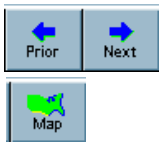
2. Click on the **Process Unit Identification** button. Note that the screen looks similar to other screens. All functions and data navigation operations are performed in the same fashion.

   Group 002 - Oil Boiler has one process unit. It is identified as #2 Oil. Press the **Edit** button. Let's look at the important information on this screen.

   - **Process Description** - What is being processed? Combusted? If you used the Group Description field to describe the equipment, then it's logical to use the Process Description to describe what the equipment processes.
   - **Source Classification Code (SCC)** - The SCC is the unique, eight-digit code, standardized by U.S. EPA, that describes both the equipment and material processed. Selecting **Help** or **F1** will offer a menu to assist with SCC selection. The complete list of SCC codes can also be downloaded from EPA's website at http://www.epa.gov/ttn/chief/codes/. If in doubt about the proper SCC to use when adding a new

9

Editing and Adding Data: Process Unit Identification

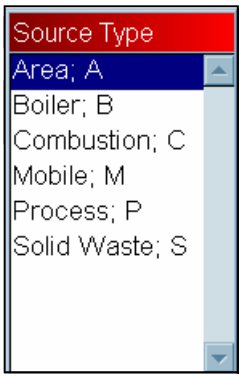


process unit, contact the Maine DEP. Emission factors are SCC-specific, so it is vital that the SCC is correct.

- **SCC Units** - Each emission factor associated with an SCC is based upon a certain rate of material process or combusted. **SCC Units** defines how the **Process Rate** (see below) needs to be expressed in order to accurately calculate the emissions from the process unit.

When adding a new Group and Process Unit, add the Stack Parameters first so the new stack will show up on the pop-up list!

- **Stack Number** - This data field ties the emissions from a process unit to the gas emitted from a stack. When you press **Help** or **F1**, you'll get a list of entered stacks.



- **Source Type** - This required field describes the process type. When you press **Help** or **F1**, you'll see this pop-up list of codes.
- **Ash Content** and **Sulfur Content** - Based on analysis of the fuel, the ash and sulfur content are expressed as percentages and are used in some emission calculations. If you do not perform this analysis yourself, your fuel supplier may be able to provide this information. Report the annual weighted average for inventory purposes.

*One of the most common errors committed by facilities is not expressing Process Rate in the SCC Units specified. Specifically, many facilities express fuel combusted in **gallons of fuel** not in **1,000 gallons of fuel**. This results in a thousand-fold increase in emissions from that process!*

- **Sensitive Data** - A required field that indicates whether or not the information is to be considered a "Trade Secret."
- **Process Rate** - The process rate is the throughput, expressed in the manner described in **SCC Units.**
- **Include in Emission Summation** and **Generate Inventory for Process** - Make sure both of these boxes are checked **Yes.** The first ensures that you see emissions from this process unit on your facility summary reports. The second ensures that your emissions are transmitted to Maine DEP and U.S. EPA.

3. Press **End** and do not save any changes.

4. Return to the **Map.**

YOUR TURN …

In this exercise, you're going to update process unit information for three different groups.

A. At the Map, make sure the Active Stream indicates that you are currently working with Group 001 - Wood Boiler. If not, click on the **Group/Area Designation** button and then use the **Prior** and **Next** buttons to find it. Then, return to the **Map.**

B. Click on the **Process Unit Identification** button.

C. You should now be at Process 01, Process Description Wood and Wood Waste. Enter the **Edit** mode.

D. The throughput needs to be updated. Update the **Process Rate** to 21,250 tons.

E. When complete, **End** and save changes. You will have noticed a number of flashing boxes in the upper right hand corner of the screen. Satellite i-STEPS has taken the new throughput and is automatically recalculating emissions. Once these notices pass, return to the **Map.**

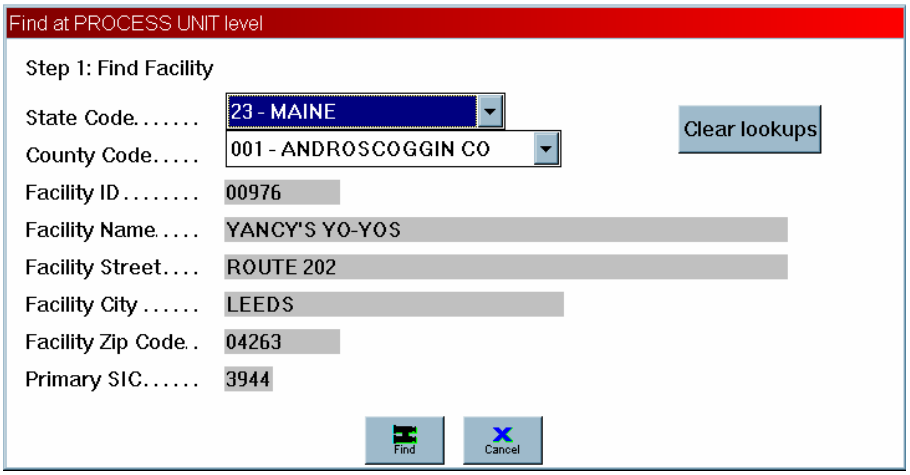
F. Click on the **Group/Area Designation** button and go to Group 002 - Oil Boiler. Return to the **Map.** Click on **Process Unit Identification** (again!).

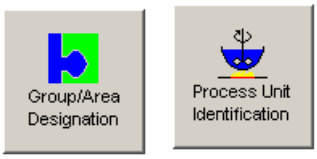
G. The sulfur content of the fuel and the throughput need to be updated. Enter the **Edit** mode and make the following changes:

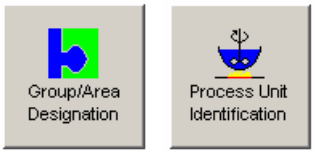
Sulfur Content	0.035%
Process Rate	5,320 gallons (remember SCC Units!)

H. When complete, **End** and save changes.

I. One more group to update, but let's take a shortcut to get there. Let's use the Find feature. Click the **Find** button.

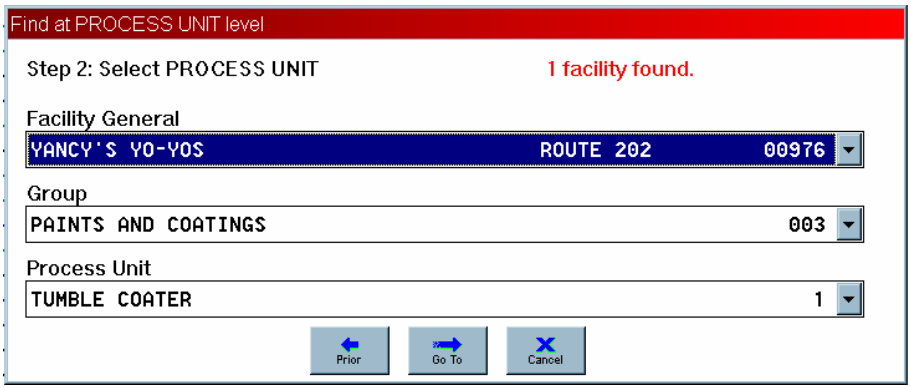






J. You now have a window asking to find a facility. The facility you're working on should be displayed, so hit the **Find** button at the bottom of this window.

K. The next window shows three drop-down selections. The first is the Facility General; the second is the Group; and the third is the Process Unit. Change the Group to **Paints and Coatings** and the Process Unit to **Tumble Coater.** Press the **Go To** button.

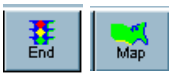


L. Voila! You are now at the **Tumble Coater** process unit under the **Paints and Coatings** group. This is a much faster way to navigate, if you know where you want to go.

M. Enter the **Edit** mode. Update the **Process Rate** to 9.2 tons of coating.

N. Select **End** and save changes. There are two process units for **Paints and Coatings.** Press the **Next** button to go to the **Spray Booth** process unit.

O. Enter the **Edit** mode again. Update the **Process Rate** to 5.3 tons of coating mix.



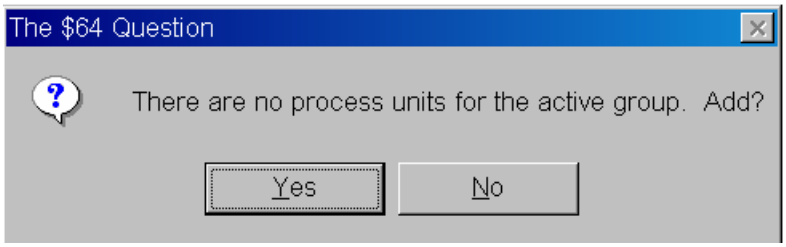
P. Select **End** and save changes. Return to the **Map**.

Adding a Process Unit

Adding a process unit to a group is similar to other **Add** functions we've seen. As with groups, there are three options for **Add: Blank** (the blank form), **Carry … Without Children** (adding a process unit and duplicating the data on the screen), and **Carry … With Children** (adding both a process unit and subordinate process unit emission records). Again, depending on the type of process and the group to which it is attached, there are advantages and disadvantages to each option.

You need to pay particular attention to the Group you are in when you enter the **Add** Mode. Once you add a process unit to a particular group, you cannot change the group to which it is attached. For example, if you meant to add a process unit to Group 003 and you mistakenly had Group 002 in the Active Stream, then you now have an unwanted process unit in Group 002 and must go through the **Delete** procedure before trying again. It's a lot of work!

When you have a group with no process units, Satellite i-STEPS knows. If you have that group in the Active Stream and you press the **Process Unit Identification** button, you will get the following message box.



When you select **Yes,** you will immediately enter **Add, Blank** mode.

YOUR TURN …

Remember the new oil-fired boiler group you added two units ago? Let's add the process unit for it now.

A. Go to the **Map** if you aren't already there. Click on the **Group/ Area Designation** button, then find Group 004 - Oil Boiler 2004.

B. Return to the **Map** and click on the **Process Unit Identification** button. You will get the message prompting you to add a process unit. Click **Yes.**

C. A blank process unit screen will appear. The **Process Description** is #6 Fuel Oil. Tab to the **Source Classification Code** field.

D. Hit the **F1** key or the **Help** button. Go to "External Combustion Boilers - Industrial," hit **Enter** or click on it. Next, select "Residual Oil," then select "Grade 6 Oil," and finally "1000 Gallons of Residual Oil (No. 6) Burned." You should now have the SCC **10200401**. Tab to the next field.

E. You will be asked if you want to use standard SCC units, select **Yes**.

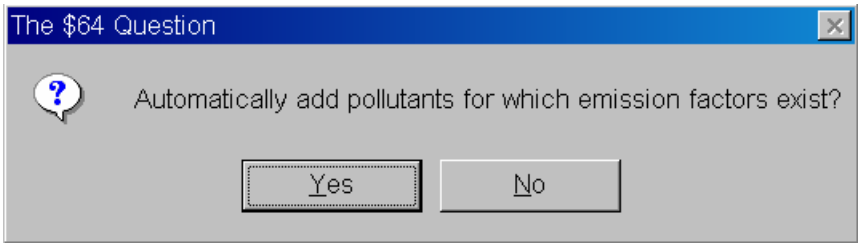
F. Select **Stack 0004 - New Oil Boiler Stack** for this new process unit. Do you remember how to get the pick list from which to choose the stack?

G. In the **Source Type** field, use the pick list again to select **Boiler; B**.

H. Enter the following information about the fuel and throughput.

Ash Content	0.08%
Sulfur Content	0.50%
Process Rate	3.4-1000 gallons

I. When finished, press the **End** button. You will receive another prompt:



Select **Yes.** Satellite i-STEPS will automatically create process emission records for all pollutants for which AP-42 emission factors exist. You can always go in later and change emission factors or manually enter emissions for pollutants that did not populate. This is simply a way to expedite the creation of the records.

J. Return to the **Map.**

10

Editing Data: Process Unit Emissions

Finally, we're down to the emissions. Pollutants emitted from the process units are tracked for each unit. In Maine, facilities are required to report emissions of up to eight criteria pollutants per process unit. These pollutants and their i-STEPS pollutant codes are:

- Carbon Monoxide (CO)
- Sulfur Dioxide (SO2)
- Volatile Organic Compounds (VOC)
- Nitrogen Oxides (NO2)
- Fine Particulate Matter of 10 microns in size or less (PM10)
- Fine Particulate Matter of 2.5 microns in size or less (PM25)
- Lead (PB)
- Ammonia (7664417)

Satellite i-STEPS offers several methods of emission calculations, ranging from automatically calculating emissions using AP-42 emission factors and locally-supplied emission factors to manual entry of emission estimates.

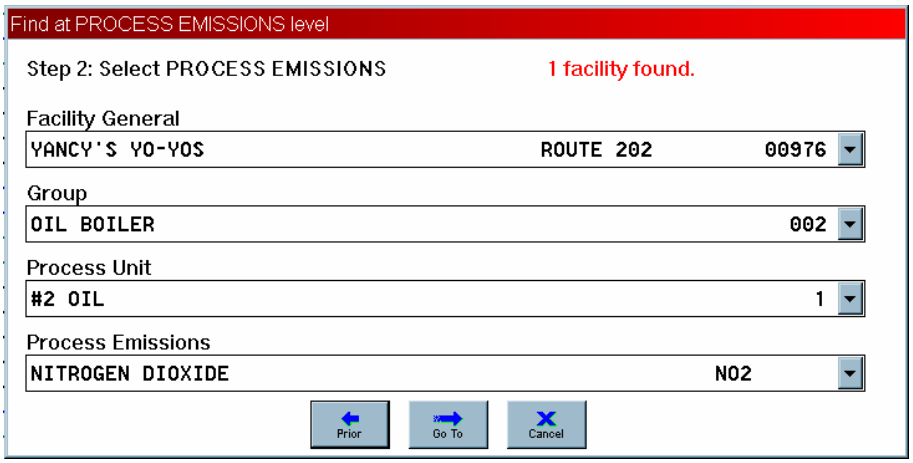
In this class, we're going to limit our discussion to two common emission-related tasks: adding a local emission factor and manually entering VOC emissions.

Adding a Local Emission Factor

As part of Maine DEP's Quality Assurance review of your emission data, you may have received a Quality Assurance report in the mail. This report may have recommended emission factors which our Air Licensing Unit staff feel more accurately characterize emissions for your facility, its equipment and fuel. If you agree with these emission factors, we encourage you to incorporate them into your local Satellite i-STEPS data set. To do so, however, you're going to need to know how to add a local emission factor.

1. To view and edit process emissions information, click on the **Process Unit Emissions** button under the Emissions Information section of the **Map**.

2. Let's find the group, process unit and pollutant for which we need to add the local emission factor. Click on the **Find** button and facility information for Yancy's Yo-Yos LLC should appear. Click on the **Find** button again.

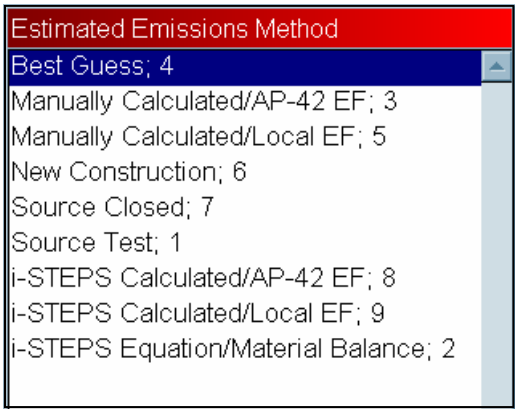


3. Now you'll see a series of drop down selections. The first row in the Facility General and Yancy's should be showing. The second row is the Group and you should select **Oil Boiler**. The third row is the Process Unit and, the only process unit for that group, **#2 Oil**, should appear. We're going to replace the AP-42 emission factor for nitrogen dioxide with one recommended by the Air Licensing Unit. On the fourth line, Process Emissions, select **Nitrogen Dioxide**. Now hit the **Go To** button.

4. You can see that Satellite i-STEPS has taken us to the group, process, and pollutant we were seeking. The Process Emissions Information screen looks similar to other Satellite i-STEPS screens. Use the **Prior** and **Next** buttons to view the emissions for all eight required pollutants.

5. Returning to Nitrogen Dioxide, enter the **Edit** mode.

6. Go to the **Estimate Emissions Method** data field. Press **F1** or hit the **Help** button and a list of estimation method codes will appear.



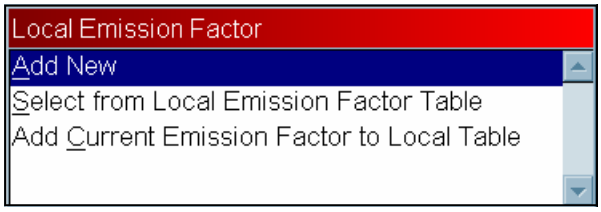
It's important to understand what these methods mean and which code you should use for a given situation.

- **i-STEPS Calculated/AP-42; 8** - This is the default method within Satellite i-STEPS. Satellite i-STEPS draws AP-42 emission factors from an underlying data table within the program and performs the emission calculation for you.
- **i-STEPS Calculated/Local EF; 9** - When using this method code, the facility must supply an emission factor, then i-STEPS uses that factor when performing the emission calculation. The local emission factor can come from many sources, including one supplied by an industry or trade group; one recommended by DEP's Air Licensing Unit; and even one included in EPA documentation other than AP-42. In other words, "local" doesn't refer to where the emission factor comes from, but where it is used. Please document where the emission factor came from in the **Note** field.

- **Manually Calculated/AP-42; 3** or **Manually Calculated/ Local EF; 5** - For some processes, you may already be using emission calculation tools (such as TANKS) or using some other software program (such as an Accounts Receivable/ Purchasing program or an Excel spreadsheet) that provides you with emission estimates. When emissions data is calculated using a program other than i-STEPS, you can enter those emission amounts using either Code 3 or 5. If you are entering manually calculated emissions, please document your method, emission factor(s) and calculations using the **Note** field.

- **Source Test; 1** - Use this method when reporting emissions from CEMs/PEMs or manually calculated emissions from a stack test. Again, please document your emission calculation method in the **Note** field.

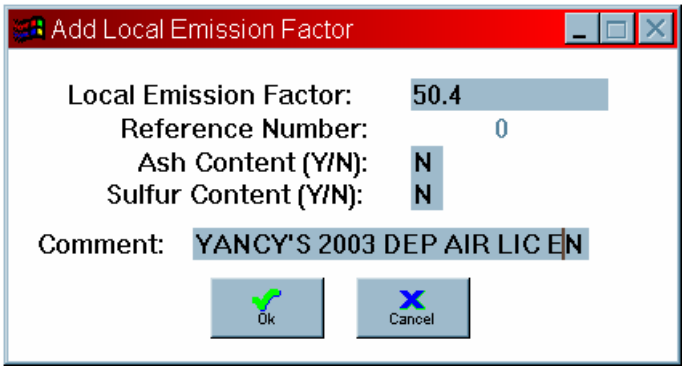
7. Select **i-STEPS Calculated/Local EF; 9** from the pick list and hit **Enter.** You will get the following window asking you for information.



8. Select **Add New** from the menu to enter a new, local emission factor.

*When adding a local factor, always enter **'N' (No)** for **Ash Content** and **Sulfur Content,** unless directed by documentation. Toggling either of those fields to **Y**, uses the percent ash or percent sulfur provided on the Process Unit Identification screen in the emission calculation. Most pollutant emission calculations, other than sulfur dioxide, do not use percent ash and percent sulfur.*

9. Now we have the **Add Local Emission Factor** window. Complete the window as depicted below. The comment field is very limited, but we do ask that you identify the emission factor by FACILITY-YEAR-SOURCE, as in the example below.



When complete, select **OK**.

10. Satellite i-STEPS immediately takes the new emission factor and applies it to the process rate (throughput) to recalculate nitrogen dioxide emissions. The pollutant has now been updated. Click **End** and save changes. Return to the **Map.**

YOUR TURN …

An error was made last year when entering the local emission factor for sulfur dioxide from wood and wood waste for Group 001 - Wood Boiler. Rather than try to edit the existing local factor, it is far easier just to add the correct local emission factor.

A. At the Map, click on the **Process Unit Emissions** button.

B. Using the **Find** feature, find the following pollutant emission record.

Facility General	Yancy's Yo-Yos LLC
Group	Wood Boiler - 001
Process Unit	Wood and Wood Waste - 1
Process Emissions	Sulfur Dioxide - SO2

When selected, click the **Go To** button.

C. Enter the **Edit** mode. Click in the **Estimated Emissions Method** field. Hit **Enter.**

D. Select **Add New** from the Local Emission Factor menu.

E. In the Add Local Emission Factor window, enter the following information:

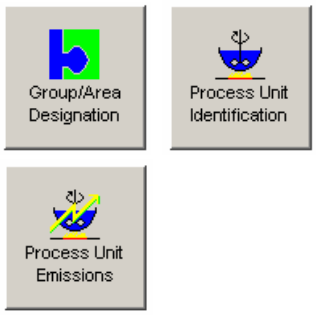
Local Emission Factor	0.175
Ash Content (Y/N)	N
Sulfur Content (Y/N)	N
Comment	(what would you put?)

When complete, click **OK.**

F. Click on **End** and save changes. Return to the **Map.**

Updating Manually Calculated Emission Estimates

As already discussed, you may have a process for which you have other calculation tools to estimate emissions. Whether a sophisticated emission tool or purchasing system or simply a spreadsheet you've used for years, Satellite i-STEPS does offer a way for you to enter emissions without going through i-STEPS calculations.



1. Start from the Map. Click on **Group/Area Designation** and go the Group 003 - Paints and Coatings. Return to the **Map** and click on **Process Unit Identification.** Stop at Process Number 1 - Tumbler Coating. Return to the **Map** and click on **Process Unit Emissions**.

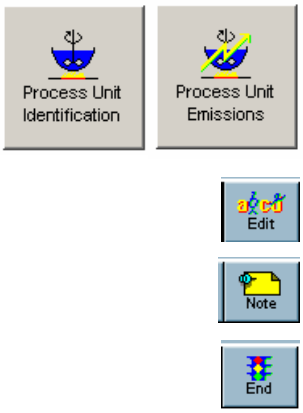
2. As you can see, manually calculated emissions have been reported previously for the only pollutant from this process, VOCs. Enter the **Edit** mode.

3. When you enter the edit mode this time, you'll notice that different fields are available for editing than in the previous exercise. Depending of the **Estimated Emissions Method** code, Satellite i-STEPS will offer different fields for editing.

4. Click in the **Emissions (No Control)** field. Change the value to 9.2 tons of VOC. Hit **Enter** and note how i-STEPS recalculates the No Rule emissions and the hourly emissions.

5. Click on the **Note** button and describe the method and emission factors used to obtain this emission estimate. (For our example, type: **VOC emissions tracked through purchasing software. Mass balance calculation based on VOC percentage of all products used in tumble coater purchased and used by Yancy's in 2004**.)

6. Click on **End** and save changes. That's all!



YOUR TURN …

The Paints and Coatings Group has two process units. Let's update the second process unit.

A. Go to the **Map**, click on the **Process Unit Identification** button. Use the **Next** button to get to Process Number 2 - Spray Booth. Go back to the **Map** and click on the **Process Unit Emissions** button.

B. Enter the **Edit** mode. Change **Emissions (No Control)** to 5.3 tons.

C. Add a **Note** similar to the note used in the class example.

D. **End** and save changes. Return to the **Map.**

With that, you now have learned all of the basic Satellite i-STEPS editing skills. Congratulations!

11

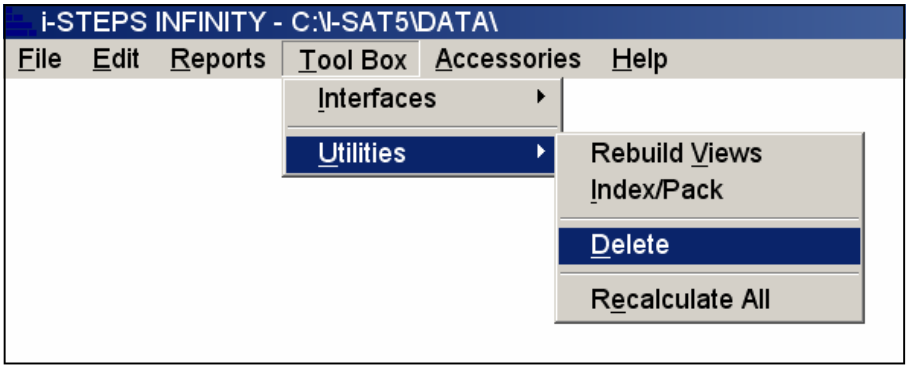
Deleting Data

One of the most confusing aspects to Satellite i-STEPS is deleting. Deleting is actually accomplished by a separate utility that is run outside the Map.

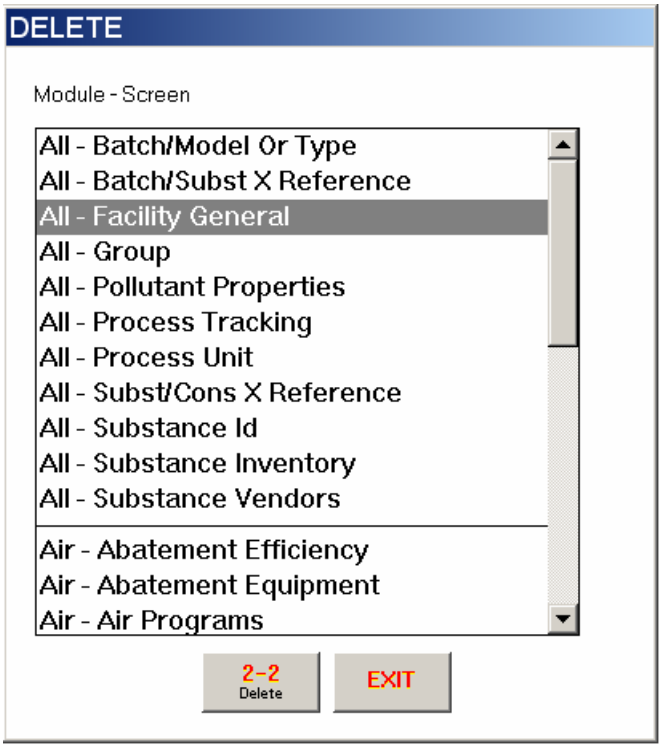
Keep in mind, throughout these examples, THERE IS NO UNDO BUTTON. Once you delete a process unit, group or the entire facility -- It's gone!

1. Starting from the Map, click on the **Exit/Leave Map** button in the Builder/Exit section. You will return to the blank, white screen you started at.

2. Select **Tool Box > Utilities > Delete.**



3. The next screen asks what you want to delete. There is a long list of things you can select. These items reflect the buttons from the Map. So you will need to know not only what to delete, but how to locate it.



*Choose the **All - Facility General** option if you are replacing your entire, existing data set with the data set provided annually by Maine DEP. Detailed instructions for replacing a facility data set can be found on the DEP website at http://www.maine.gov/dep/air/emissions/isteps-howto.htm#Deleting.*

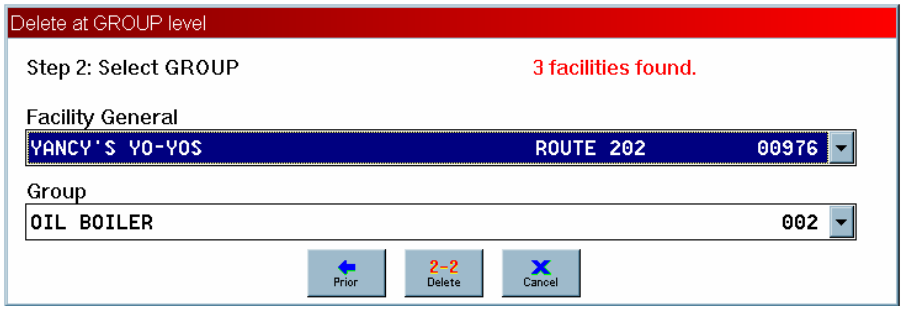
4. Select the appropriate level at which you want to delete. **Satellite i-STEPS will delete from the level you indicate downward.** If you pick to delete a group, Satellite i-STEPS will delete the group indicated and any associated process units and all process unit emissions. The following is a brief description of what is deleted from what level.

   - **All - Facility General** - Selecting this will delete the entire facility and all associated groups, processes, stacks, and abatement equipment.
   - **Air - Stack Parameters** - This will delete all information for a selected stack. The stack is chosen by selecting the facility and then the stack.
   - **All - Group -** This will allow you to select a group and delete it and all associated processes and process emissions.
   - **All - Process Unit** - This will allow you to delete a process from the group without losing the group information and will delete all emissions attributed to the process.
   - **Air - Process Emissions** - This will delete any emissions estimate at the process level by selecting the facility, group, process, and pollutant.

5. In our example facility, Yancy's Yo-Yos wants to delete the old oil-fired boiler that has been replaced. You need to delete a group, process unit and process unit emissions. Select **All - Group**. Press the **2-2 Delete** button.

6. Next, you will get a Find Facility screen. If your facility isn't showing, select **Clear lookups.** Press **Find**.

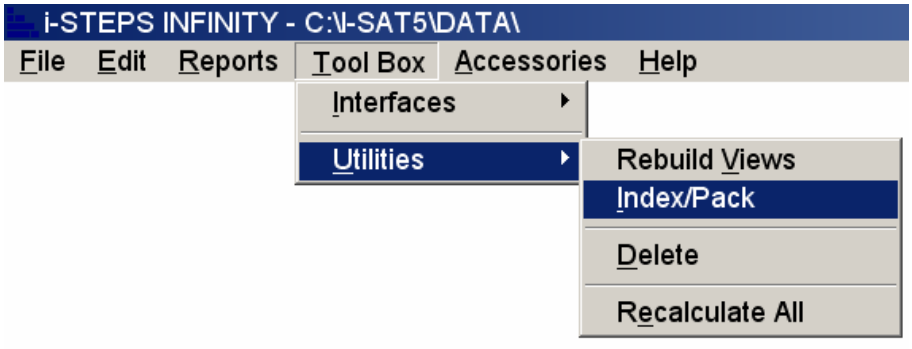
7. Select your facility and the proper group. Now select **2-2 Delete**.



8. You will be asked **The $64 Questions: Are you sure you want to delete the selected Group data record and any related child data records?** If you're sure, press **Yes**.

9. When the deletion is complete, you are returned to the Find Facility screen. Select **Cancel** and then **Exit** on the next screen to leave the Delete utility.

10. Lastly, every time you delete information, you need to run the **Index/Pack** option in the **Utilities** menu.



Two information windows will appear during the **Index/Pack** utility: **Creating Indexes…** and **Generating Foreign Keys…** When complete, you should find yourself back at the opening (blank white) screen that you see when you first log into Satellite i-STEPS.

12

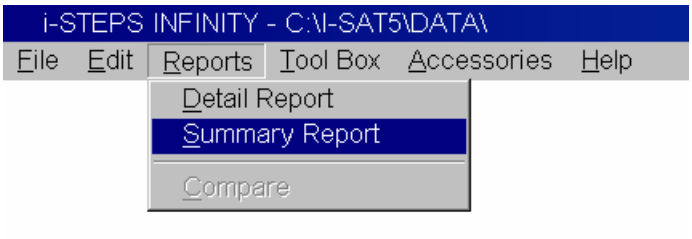
Printing Reports

Satellite i-STEPS has limited reporting capabilities. Two pre-designed reports are all that i-STEPS offers.

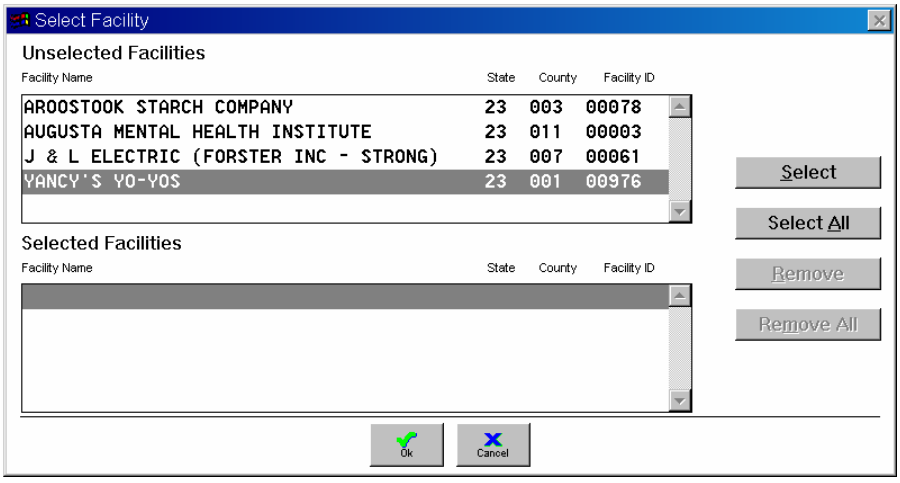
- The **Detail Report** does exactly as the name says - it provides a detailed print out of all facility information in i-STEPS. This report is a useful final check to ensure that all emissions information has been updated. A sample of the Detail Report is shown on page 37, highlighting areas to check.
- The **Summary Report** contains the certification statement that must accompany all inventory submissions.

We'll walk through the steps to print the Summary Report. The procedures for printing the Detail Report are similar.

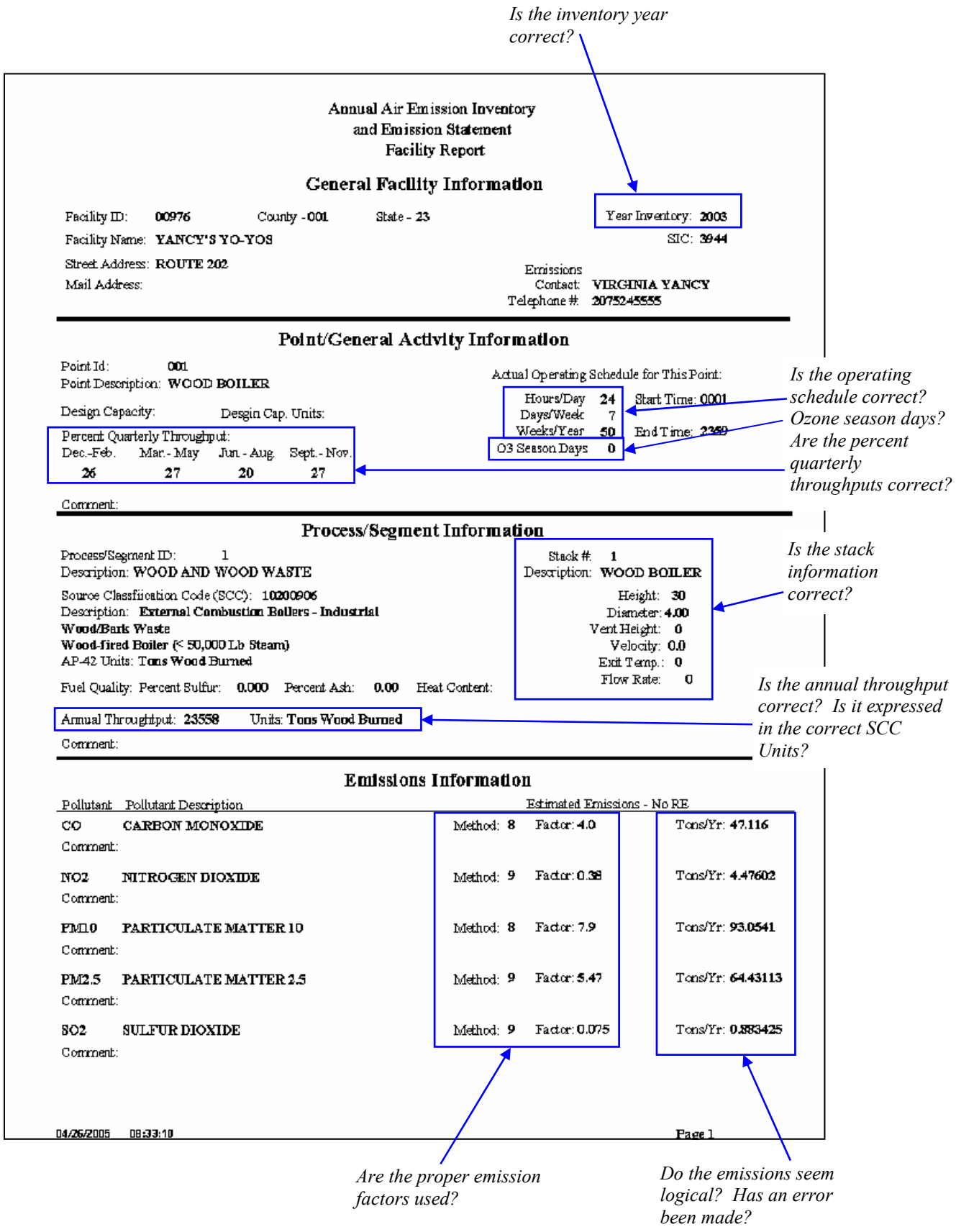
1. If you are currently at the Map, close it by selecting ***Exit/Leave Map***.
2. Select **Reports > Summary Report**.



3. Select the facility for which you want to print the Summary Report. Highlight the Facility in the upper box, press **Select**, then press **OK**.



4. You will be prompted to print to screen or printer. Select **Screen** to preview the report. You can still print from the Screen mode.



Page One of the Satellite i-STEPS Detail Report

Due to a delayed programming update, the Summary Report does not provide summaries for ammonia and PM2.5. Don't worry -- your emissions are still there! To view facility-wide ammonia and PM 2.5 totals, print the Detail Report. Facility emissions are summarized on the last page of the Detail Report.

5. Selecting Screen takes you directly to Print Preview. A tool box will appear in an upper corner of the screen. This tool box allows you to navigate through Print Preview and to print. Satellite i-STEPS will print to your default printer. There are no printer selection options available in Print Preview.

First, Previous, Go To Page, Next and Last buttons

Close

Print (to default printer)

6. When printing is complete, you will exit immediately to the blank, white screen you have upon entering i-STEPS.

Don't forget to sign and mail the Summary Report to DEP with your electronic submission. If you are sending files by e-mail, you must still send a hardcopy of the Summary Report (or other appropriate certification statement) with signature to DEP.

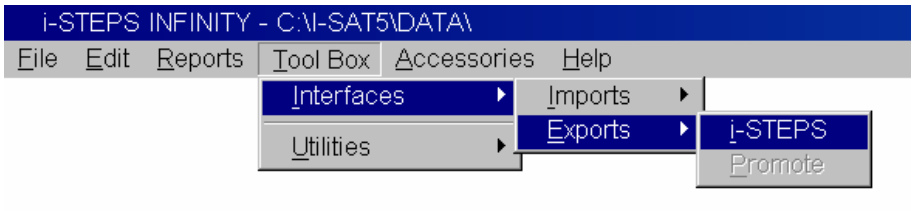
13

Exporting Data

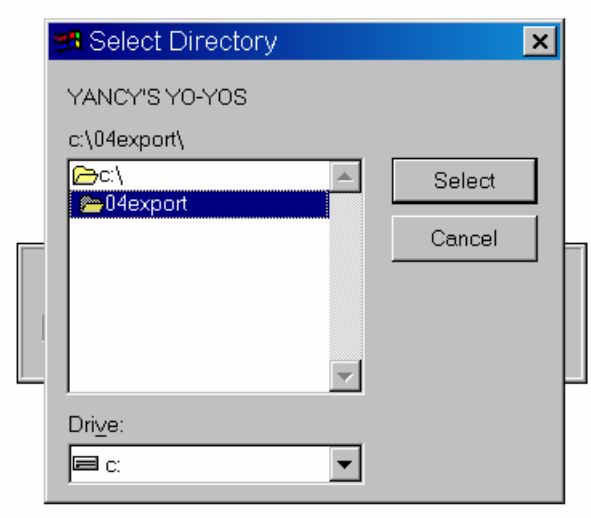
Now that you've completed your inventory, you still need to transmit it to Maine DEP. In this unit, we'll walk through the Satellite i-STEPS export procedure.

You can export data to any drive or folder on your computer. During the export procedure, all files in the export folder (or on the export floppy) are erased. Maine DEP strongly recommends that you create a new folder on your hard drive to store the export files. Files can then be transferred to floppy, CD, zipped or e-mailed from the export location. However, new folders or subdirectories cannot be created during the export procedure, so you will need to create that directory before you begin.

1. Minimize Satellite i-STEPS. Working from the computer's desktop, double-click on **My Computer.** Double-click on **Local Disk (C:)**.
2. Select **File > New > Folder.** Name the new folder **04export**.
3. Maximize Satellite i-STEPS. Select **Tool Box > Interfaces > Exports > i-STEPS**.



4. A **Select Directory** dialog box will appear. The top of the dialog box will display your facility name. Navigate to the new export folder, **C:\04import**, you just created. When you're there, press **Select**.



5. You will be prompted to confirm the export location. ALL FILES EXISTING IN THE DIRECTORY WILL BE ERASED! Press **Yes** to confirm.

6. A series of procedure dialog boxes will track your progress. When complete, you will be returned to the blank, white opening screen.

Once the files have been exported, they can be transmitted to Maine DEP or archived for future reference. The DEP currently accepts electronic submissions on:

- 3 1/2" floppy diskettes;
- CD-ROM (formatted for PC); or
- via e-mail. E-mail submissions should be sent to DEP's Becky Hodsdon (becky.s.hodsdon@Maine.gov). A confirmation e-mail will be sent to facilities when their submission has been received.

The Department will not accept submissions on 5 1/4" floppy diskettes. Be sure to include a signed Summary Report or other certification statement with your submission!

14

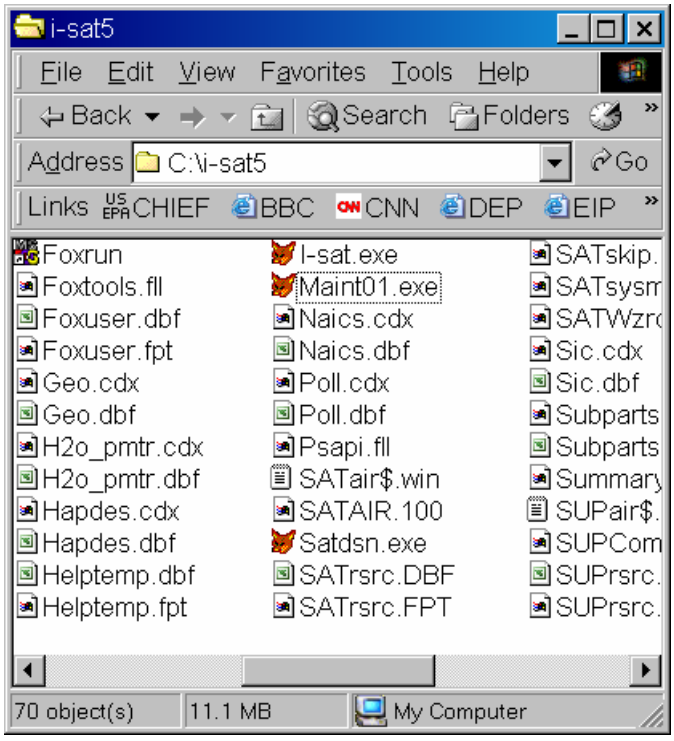
Basic Troubleshooting

In a perfect world, no computer program would ever fail, crash, freeze or lose data. But, we live in Maine. And, although we live in a place known for "The Way Life Should Be," computer programs still do fail to operate properly in Maine as well.

Satellite i-STEPS is known to "freeze up" or provide obtuse error messages when performing some unauthorized actions. Unfortunately, you won't recognize an unauthorized action until you've already committed it. When i-STEPS fails to function, follow these steps.

1. Using Windows Explorer or **My Computer**, go to the directory where your Satellite i-STEPS program resides. If you installed the program in the default location, go to **C:\i-sat5**.

2. Locate a file named **maint01.exe.** Double click on the file.

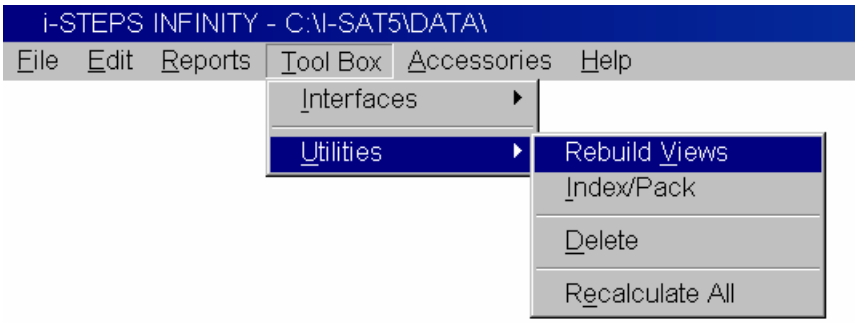


3. A dialog box will prompt you to point to the data directory. **This is the data directory created during the installation of Satellite i-STEPS and can, by default, be found at C:\i-sat5\data\.** If you installed i-STEPS someplace other than its default location, use the drop down box to path to the **\data** directory.

4. Press **Select** and the maintenance program will run. It's fast! If all worked well, the open windows will disappear and you'll be left wondering what just happened.

5. You can then re-open Satellite i-STEPS and log in again.

Satellite i-STEPS uses view of database tables, not the tables themselves, in its operation. If the program has "frozen up," it might have been because of an inconsistency between the views and the tables. Another utility, **Rebuild Views,** reconnects the fields in the views with the fields in the tables. To run Rebuild Views, open **Tool Box > Utilities > Rebuild Views.** A number of dialog boxes will appear as the program runs and you should be returned to the opening (blank, white) screen when its complete.



Finally, it is so important to **Index/Pack** after any data deletion. Index/Pack is located on the same Utilities menu.

Other than these utilities that accompany Satellite i-STEPS, there is little other advice to offer. Maine DEP has observed that some networks interfere with the functioning of the program, but this is very site-specific. When all else fails, you can always re-install the program. However, removing and re-installing the program will result in a loss of data.

Congratulations!

You've just completed Satellite i-STEPS Beginner Training!